

**REMARKS**

Claims 4-7, 10-17, 20, 23-26, 28, 34, 38, and 39 are all the claims presently pending in the application.

Applicant gratefully acknowledges that **claims 4, 5, 7, 10-17, 20, and 26** would be **allowable** if rewritten in independent form.

Applicant thanks the Examiner for courtesies extended in the telephone conference conducted on May 27, 2005, in which the Examiner kindly confirmed that claim 26 has not been rejected under 35 U.S.C. § 112, second paragraph, and that the reference to such (see Office Action at page 4, numbered paragraph 5) was merely a clerical error by the Examiner.

New claims 38 and 39 are added to define more clearly and particularly the features of the claimed invention and to provide more varied protection for the present invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 6, 23-25, 28, and 34 stand rejected on prior art grounds under 35 U.S.C. § 102(e) as being anticipated by newly cited Takamatsu, et al. (U.S. Patent No. 6,493,308; hereinafter “Takamatsu”).

This rejection is respectfully traversed in the following discussion.

## I. THE CLAIMED INVENTION

The claimed invention is directed to a novel and unobvious disc player.

In an exemplary aspect of the claimed invention, the disc player includes a positioning unit that is capable of positioning the disc, not only in the vertical direction, but also in the lateral direction with respect to the drive unit (i.e., direction parallel to the drive unit), such that the disc can be clamped to the turntable by the clamper unit and rotated by the drive unit.

Further, according to the exemplary aspects of the claimed invention, since the positioning unit and the clamper unit are provided separately from each other and movable substantially vertically to the drive unit, the claimed invention can maintain a thin structure for the disc player (e.g., see specification at page 3, lines 13-20).

Moreover, the positioning unit of the disc player according to the exemplary aspects of the claimed invention can accommodate discs having the same diameter, or discs of a plurality of different diameters. That is, the positioning unit of the disc player according to the claimed invention can be adapted to a disc player that accommodates, for example, only 8 cm diameter discs, only 12 cm diameter discs, or both 8 cm and 12 cm diameter discs. Thus, the claimed invention is applicable to a disc player adapted to different kinds of discs different in diameter and/or to a disc player adapted to the same kind of discs having the same diameter.

## II. THE PRIOR ART REJECTION

Claims 6, 23-25, 28, and 34 stand rejected on prior art grounds under 35 U.S.C. § 102(e) as being anticipated by newly cited Takamatsu.

Applicant respectfully submits, however, that Takamatsu does not disclose or suggest all of the elements of the claimed invention, or for that matter, the advantages derived therefrom. Therefore, Takamatsu clearly does not anticipate, or render obvious, the claimed invention.

### A. Claims 6 and 23:

The Examiner alleges that Takamatsu discloses all of the features of claims 6 and 23. However, for the following reasons, Applicant respectfully submits that Takamatsu does not disclose or suggest all of the novel and unobvious combination of features of the claimed invention.

As a preliminary matter, Applicant notes that the present invention is directed to a CD player for a vehicle, in which the thickness of the CD player is minimized (e.g., see specification at page 1, lines 15-17. The exemplary CD player receives a disc 1 (*all reference numerals herein being used for the Examiner's clarity only and not for limiting the claims*), which is inserted into the disc player and fed into the player main body 11. The disc player includes a positioning unit that is capable of positioning plural kinds of discs including different sizes. Both the positioning unit and the clamping unit are movable vertically to the drive unit, such that discs of different sizes can be fed into the CD player and positioned on the drive unit.

Turning to the claims, independent claim 6 recites, *inter alia*, a disc player including:

*a positioning unit for positioning a disc;  
a clamper unit for performing a clamp operation on the  
disc positioned by said positioning unit; and  
a drive unit that includes a pickup and a turntable, and  
rotates the disc clamped on the turntable by said clamp unit to  
take out information from the disc by said pickup,  
wherein said positioning unit and said clamper unit are  
provided separately from each other and are movable  
substantially vertically to said drive unit, and  
wherein said positioning unit is designed to position  
plural kinds of discs including different sizes* (emphasis added).

On the other hand, independent claim 23 recites, *inter alia*, a disc player including:

*a positioning unit for positioning a disc;  
a clamper unit for performing a clamp operation on the  
disc positioned by said positioning unit; and  
a drive unit that includes a pickup and a turntable, and  
rotates the disc clamped on the turntable by said clamp unit to  
take out information from the disc by said pickup,  
wherein said positioning unit and said clamper unit are  
provided separately from each other and are movable  
substantially vertically to said drive unit,  
wherein said positioning unit positions said disc in a  
direction parallel to said drive unit, and  
wherein said disc comprises one of a plurality of discs  
comprising different diameters* (emphasis added).

In comparison, Takamatsu discloses a ten (10) disc CD changer in which a tray housing section 4 includes ten disc trays 3. Particularly, Takamatsu discloses that each disc tray 3 includes a disc housing recess 11 for holding a 12 cm diameter optical disc 2 set therein. The disc tray 3 also includes an auxiliary disc housing recess 12 for holding an 8 cm diameter optical disc (e.g., see Takamatsu at column 5, line 62 to column 6, line 2; see Figure 2). The center of the disc housing recess 12 coincides with the center of the disc housing recess 11 (e.g., see Takamatsu at column 5, lines 63-66).

As shown in Figure 4 of Takamatsu, the tray housing section 4 includes supporting pieces 43 for supporting each disc tray 3, such that the disc tray 3 cannot move vertically (e.g., see Takamatsu at column 8, lines 44-57).

The Examiner alleges that Takamatsu discloses a CD player in which the positioning unit is movable substantially vertically (uplifted and lowered; see Takamatsu at column 18, lines 1-3) to the drive unit wherein the positioning unit is designed to position a plurality of kinds of discs including discs of different sizes (see Takamatsu at column 5, line 62 to column 6, line 2).

However, contrary to the Examiner's position, column 18, lines 1-3 of Takamatsu does not disclose or suggest that the positioning unit (i.e., the disc tray 3) is movable substantially vertically (i.e., uplifted and lowered).

Instead, the cited portion of Takamatsu states that "the disc tray 3 is not changed in its position from (sic) the state shown in FIG. 17 to that shown in FIG. 18. In the state shown in FIG. 18, the recording and/or reproducing unit inclusive of the upper chassis 101 can be uplifted and lowered across plural disc trays 3 stacked in the tray housing section 4" (see Takamatsu at column 17, lines 66-67 and column 18, lines 1-4; emphasis added).

That is, the recording and/or reproducing unit (not the disc tray 3) is uplifted and lowered across the stationary plural disc tray 3. Thus, the disc tray 3 (which the Examiner compares to the claimed "positioning unit") is not "movable substantially vertically to said drive unit" as recited in claim 6.

Instead, the recording and/or reproducing unit is movable across the disc tray 3, which clearly does not move vertically. Indeed, as shown in Figure 4 of Takamatsu, the

tray housing section 4 includes supporting pieces 43 for supporting each disc tray 3, such that the disc tray 3 cannot move vertically (e.g., see Takamatsu at column 8, lines 44-57).

Takamatsu discloses that the disc recording and/or reproducing unit is uplifted or lowered to a position facing the selected one of plural disc trays 3 stacked in the tray housing section 4. Takamatsu further discloses that the disc recording and/or reproducing apparatus 50 pulls out (e.g., laterally, not vertically) the selected disc tray 3 towards the recording and/or reproducing unit (e.g., see Takamatsu at column 12, lines 64-67 and column 13, lines 1-7).

Moreover, in the claimed invention, a disc of 8 cm or 12 cm, which is arbitrarily selected by a user, can be automatically positioned to the center of the turntable. In comparison, as mentioned above, in Takamatsu, a disc of 8 cm or 12 cm must be manually positioned in the appropriate circular groove formed on the disc tray 3 (i.e., recess 11 for holding a 12 cm disc, and recess 12 for holding an 8 cm disc) by the user in advance (i.e., before the disc tray 3 is pushed into the tray housing section 4) (e.g., see Takamatsu at column 5, line 62 to column 6, lines 2; see also Figure 2).

For the foregoing reasons, Takamatsu clearly does not disclose or suggest all of the features of independent claim 6, including at least that the “positioning unit and said clamp unit are provided separately from each other and are movable substantially vertically to said drive unit” as recited in claim 6.

Similarly, Takamatsu clearly does not disclose or suggest all of the features of independent claim 23, including at least that the “positioning unit and said clamp unit are provided separately from each other and are movable substantially vertically to said drive unit” as recited in claim 23.

Thus, Takamatsu clearly does not anticipate, or for that matter render obvious, the claimed invention defined by independent claims 6 and 23. Therefore, the Examiner is requested to withdraw this rejection and permit claims 6 and 23 to pass to immediate allowance.

**B. Claim 24:**

Claim 24 recites, *inter alia*, that the “*positioning unit positions one of said plurality of discs in a direction parallel to said drive unit based on a diameter of said one of said plurality of discs*” (emphasis added).

The Examiner alleges that Takamatsu discloses this feature of the claimed invention. However, the Examiner does not cite any support for this position, but instead, merely duplicates the claim language.

Applicant respectfully submits that claim 24 is patentable over Takamatsu by virtue of its dependency from claim 23, as well as for the additional features recited therein.

For example, Takamatsu clearly does not disclose or suggest the novel and unobvious combination of features in which the “*positioning unit positions one of said plurality of discs in a direction parallel to said drive unit based on a diameter of said one of said plurality of discs*” and in which the “positioning unit and said clamper unit are provided separately from each other and are movable substantially vertically to said drive unit” as recited in claim 23.

Thus, Takamatsu clearly does not anticipate, or for that matter render obvious, the claimed invention defined by dependent claim 24. Therefore, the Examiner is requested to withdraw this rejection and permit claim 24 to pass to immediate allowance.

**C. Claim 25:**

Claim 25 recites, *inter alia*, that the “*positioning unit is operable to position said plurality of discs in a direction parallel to said drive unit based on said different diameters of said plurality of discs*” (emphasis added).

The Examiner alleges that Takamatsu discloses this feature of the claimed invention. However, the Examiner does not cite any support for this position, but instead, merely duplicates the claim language.

Applicant respectfully submits that claim 25 is patentable over Takamatsu by virtue of its dependency from claim 23, as well as for the additional features recited therein.

For example, Takamatsu clearly does not disclose or suggest the novel and unobvious combination of features in which the “*positioning unit is operable to position said plurality of discs in a direction parallel to said drive unit based on said different diameters of said plurality of discs*” and in which the “*positioning unit and said clammer unit are provided separately from each other and are movable substantially vertically to said drive unit*” as recited in claim 25.

Thus, Takamatsu clearly does not anticipate, or for that matter render obvious, the claimed invention defined by dependent claim 25. Therefore, the Examiner is requested to withdraw this rejection and permit claim 25 to pass to immediate allowance.

**D. Claim 28:**

Independent claim 28 recites, *inter alia*, a disc player including:

*a positioning unit for positioning a disc;*

*a clamp unit for performing a clamp operation on the disc positioned by said positioning unit; and*

*a drive unit that includes a pickup and a turntable, and rotates the disc clamped on the turntable by said clamp unit to take out information from the disc by said pickup,*

*wherein said positioning unit and said clamp unit are provided separately from each other and are movable substantially vertically to said drive unit,*

*wherein said positioning unit positions said disc in a direction parallel to said drive unit,*

*wherein said disc comprises one of a plurality of discs comprising different diameters, and*

*wherein said positioning unit positions one of said plurality of discs in a direction parallel to said drive unit based on a diameter of said one of said plurality of discs such that said one of said plurality of discs is aligned with said drive unit for rotating by said drive unit (emphasis added).*

As mentioned above, Takamatsu discloses a ten (10) disc CD changer in which a tray housing section 4 includes ten disc trays 3. Particularly, Takamatsu discloses that each disc tray 3 includes a disc housing recess 11 for holding a 12 cm diameter optical disc 2 set therein. The disc tray 3 also includes an auxiliary disc housing recess 12 for holding an 8 cm diameter optical disc (e.g., see Takamatsu at column 5, line 62 to column 6, line 2; see Figure 2). As shown in Figure 4 of Takamatsu, the tray housing section 4 includes supporting pieces 43 for supporting each disc tray 3, such that the disc tray 3 cannot move vertically (e.g., see Takamatsu at column 8, lines 44-57).

The Examiner alleges that Takamatsu discloses all of the features recited in independent claim 28. However, the Examiner does not cite any support for this position, but instead, merely duplicates the claim language.

As mentioned above, column 18, lines 1-3 of Takamatsu does not disclose or suggest that the positioning unit (i.e., the disc tray 3) is movable substantially vertically (i.e., uplifted and lowered). Instead, the cited portion of Takamatsu states that “the disc

*tray 3 is not changed in its position from (sic) the state shown in FIG. 17 to that shown in FIG. 18. In the state shown in FIG. 18, the recording and/or reproducing unit inclusive of the upper chassis 101 can be uplifted and lowered across plural disc trays 3 stacked in the tray housing section 4" (see Takamatsu at column 17, lines 66-67 and column 18, lines 1-4; emphasis added).*

That is, the recording and/or reproducing unit is uplifted and lowered across the stationary plural disc tray 3. Thus, the disc tray 3 (which the Examiner compares to the claimed "*positioning unit*") is not "movable substantially vertically to said drive unit" as recited in claim 28.

Instead, the recording and/or reproducing unit (not the disc tray 3) is movable across the disc tray 3, which clearly does not move vertically. Indeed, as shown in Figure 4 of Takamatsu, the tray housing section 4 includes supporting pieces 43 for supporting each disc tray 3, such that the disc tray 3 cannot move vertically (e.g., see Takamatsu at column 8, lines 44-57).

For the foregoing reasons, Takamatsu clearly does not disclose or suggest all of the features of independent claim 28, including at least that the "*positioning unit and said clamer unit are provided separately from each other and are movable substantially vertically to said drive unit*" as recited in claim 28.

Thus, Takamatsu clearly does not anticipate, or for that matter render obvious, the claimed invention defined by independent claim 28. Therefore, the Examiner is requested to withdraw this rejection and permit claim 28 to pass to immediate allowance.

**E. Claim 34:**

Independent claim 34 recites, *inter alia*, a disc player including:

*means for positioning a disc in a lateral direction for rotating by a drive unit and to take out information from the disc by a pickup of said drive unit; and*  
*means for performing a vertical clamping operation on the disc after said disc is laterally positioned for rotating said disc on a turntable of said drive unit,*  
*wherein said means for positioning and said means for clamping are provided separately from each other and movable substantially vertically to said drive unit,*  
*wherein said disc comprises one of a plurality of discs including different diameters, and*  
*wherein said means for positioning comprises means for positioning in a lateral direction said one of said plurality of discs including different diameters for rotating by said drive unit* (emphasis added).

As mentioned above, Takamatsu discloses a ten (10) disc CD changer in which a tray housing section 4 includes ten disc trays 3. As shown in Figure 4 of Takamatsu, the tray housing section 4 includes supporting pieces 43 for supporting each disc tray 3, such that the disc tray 3 cannot move vertically (e.g., see Takamatsu at column 8, lines 44-57).

The Examiner alleges that Takamatsu discloses all of the features recited in independent claim 34. However, the Examiner does not cite any support for this position, but instead, merely duplicates the claim language.

Contrary to the Examiner's position, Applicant respectfully submits that Takamatsu clearly does not disclose or suggest any structure, equivalents thereof, or identity of function necessary for the claimed "*means for positioning*". Indeed, the Examiner has not identified or provided any support for *how* or *where* Takamatsu discloses or suggests the specific arrangement of elements disclosed in the specification and drawings of the present application.

Thus, Applicant respectfully submits that Takamatsu clearly does not disclose or suggest any structure, equivalents thereof, or identity of function necessary for the claimed “*means for positioning*”, as recited in independent claim 34.

For example, as mentioned above, column 18, lines 1-3 of Takamatsu does not disclose or suggest that the positioning unit (i.e., the disc tray 3) is movable substantially vertically (i.e., uplifted and lowered). Instead, the cited portion of Takamatsu states that “the disc tray 3 is not changed in its position from (sic) *the state shown in FIG. 17 to that shown in FIG. 18. In the state shown in FIG. 18, the recording and/or reproducing unit inclusive of the upper chassis 101 can be uplifted and lowered across plural disc trays 3 stacked in the tray housing section 4*” (see Takamatsu at column 17, lines 66-67 and column 18, lines 1-4; emphasis added).

Thus, the disc tray 3 (which the Examiner compares to the positioning unit) is not “movable substantially vertically to said drive unit” as recited in claim 28.

Moreover, in the claimed invention, a disc of 8 cm or 12 cm, which is arbitrarily selected by a user, can be automatically positioned to the center of the turntable by the claimed “*means for positioning*”. In comparison, as mentioned above, in Takamatsu, a disc of 8 cm or 12 cm must be manually positioned in the appropriate circular groove formed on the disc tray 3 (i.e., recess 11 for holding a 12 cm disc, and recess 12 for holding an 8 cm disc) by the user in advance (i.e., before the disc tray 3 is pushed into the tray housing section 4) (e.g., see Takamatsu at column 5, line 62 to column 6, lines 2; see also Figure 2).

For the foregoing reasons, Takamatsu clearly does not disclose or suggest all of the features of independent claim 34, including at least that the “*means for positioning*” as recited in claim 34.

Thus, Takamatsu clearly does not anticipate, or for that matter render obvious, the claimed invention defined by independent claim 34. Therefore, the Examiner is requested to withdraw this rejection and permit claim 34 to pass to immediate allowance.

#### IV. NEW CLAIMS

New claims 38 and 39 are added to define more clearly and particularly the features of the claimed invention and to provide more varied protection for the present invention. Applicant submits that claims 38 and 39 are patentable over Takamatsu at least by virtue of its dependency from claim 6, as well as for the additional features recited therein.

Clearly, Takamatsu does not disclose or suggest a “stationary drive unit which is not movable substantially vertically” as recited in claim 38. Instead, Takamatsu specifically discloses that the drive motor 61 is provided on the chassis 60 of the disc recording and/or reproducing apparatus 50. As mentioned above, the disc recording and/or reproducing apparatus 50 is uplifted or lowered to a position facing the selected one of plural disc trays 3 stacked in the tray housing section 4, and the disc recording and/or reproducing apparatus 50 pulls out (e.g., laterally, not vertically) the selected disc tray 3 towards the recording and/or reproducing unit (e.g., see Takamatsu at column 12, lines 64-67 and column 13, lines 1-7).

Moreover, in the claimed invention, a disc of 8 cm or 12 cm, which is arbitrarily selected by a user, can be automatically positioned to the center of the turntable. In comparison, as mentioned above, in Takamatsu, a disc of 8 cm or 12 cm must be manually positioned in the appropriate circular groove formed on the disc tray 3 (i.e., recess 11 for holding a 12 cm disc, and recess 12 for holding an 8 cm disc) by the user in

advance (i.e., before the disc tray 3 is pushed into the tray housing section 4) (e.g., see Takamatsu at column 5, line 62 to column 6, lines 2; see also Figure 2).

Thus, Takamatsu clearly does not disclose or suggest that “*said positioning unit automatically centers said plural kinds of discs, which include different sizes, with respect to a center of said turntable*”, as recited in claim 39.

For the foregoing reasons, Applicant submits that claims 38 and 39 clearly are not anticipated by, or rendered obvious from, Takamatsu.

#### **V. FORMAL MATTERS**

Applicant respectfully reiterates the request that the Examiner accept and approve the formal replacement drawings filed on September 3, 2004.

#### **VI. CONCLUSION**

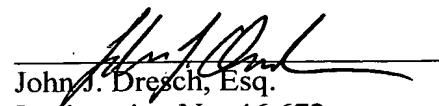
In view of the foregoing, Applicant submits that all of the pending claims (i.e., claims 4-7, 10-17, 20, 23-26, 28, 34, 38, and 39) in the present application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully submitted,

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